I. GENERAL: THIS PROJECT INVOLVES RECONSTRUCTION OF THE EXISTING TRAFFIC

SIGNAL TO MAST ARM STRUCTURES AT THE INTERSECTION OF MD 450

(ANNAPOLIS ROAD) AND 57TH AVENUE IN PRINCE GEORGE'S COUNTY.

MD 450 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION:

A SYSTEM READY BASE-MOUNTED "S"-TYPE CABINET AND CONTROLLER WITH ALL THE NECESSARY EQUIPMENT WILL BE INSTALLED AT THE INTERSECTION. THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, FULLY-ACTUATED MODE. MD 450 WILL CONTINUE TO OPERATE WITH EXCLUSIVE/PERMISSIVE LEFT-TURNS; 57TH AVENUE WILL MAINTAIN A SPLIT PHASE OPERATION. THE EXISTING PEDESTRIAN CONTROLS WILL BE UPDATED TO COUNTDOWN PEDESTRIAN SIGNALS WITH AUDIBLE/TACTILE PUSHBUTTONS.

AUDIBLE PUSHBUTTONS WILL FUNCTION AS FOLLOWS:

1. WHEN THE PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:

> NORTH LEG: "WAIT TO CROSS 57TH AT ANNAPOLIS, WAIT," SOUTH LEG: "WAIT TO CROSS 57TH AT ANNAPOLIS, WAIT." WEST LEG: "WAIT TO CROSS ANNAPOLIS AT 57TH, WAIT," EAST LEG: "WAIT TO CROSS ANNAPOLIS AT 57TH, WAIT."

2. WHEN THE "WALK" PHASE BEGINS, THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

III. SPECIAL NOTES:

THE CONTRACTOR SHALL PURCHASE AND DELIVER THE NAVIGATOR CENTRAL CONTROL UNIT FOR THE CONTROLLER TO THE SHA SIGNAL SHOP AT 7491 CONNELLEY ROAD, HANOVER, MD, 212076, MR, EDWARD RODENHIZER SHALL BE CONTACTED AT 410-787-7652 AT LEAST 3 DAYS PRIOR TO THE DELIVERY.

IV PROJECT CONTACTS:

1. THE CONTACT PERSONNEL FOR THIS PROJECT ARE AS FOLLOWS:

MS, FELECIA MURPHY, ASSISTANT DISTRICT ENGINEER - TRAFFIC PHONE: (301) 513-7404

MR. DUANE BERNARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION PHONE: (301) 513-7385

MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHONE: (310) 513-7304

MR. VICTOR GRAFTON, UTILITY ENGINEER PHONE: (310) 513-7350

MR. RICHARD DAFF, SR., CHIEF - TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7630

MR. EDWARD RODENHIZER, CHIEF - SIGNAL SHOP PHONE: (410) 787-7652

MR. SONNY BAILEY, CHIEF - SIGN SHOP PHONE: (410) 787-7676

POWER COMPANY REPRESENTATIVE: PEPCO MR. PAUL WILSON PEPCO-DISTRIBUTION ENGINEERING 201 W. GUDE DRIVE ROCKVILLE, MD 20850 (301) 548-4332

2. MAINTENANCE OF TRAFFIC WILL BE PERFORMED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE SHA BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR. ITEM

<u>NO.</u> QUANTITY DESCRIPTION 9000 1 EA CONTROLLER CABINET, SIZE S WITH VIDEO DETECTION INTERFACE EQUIPMENT: 1-8 CAMERAS

SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGNS CONSISTING OF: D-3(1) (VAR."x 16") MAST ARM-MOUNTED, "Annapolis RD", DUAL-FACED D-3(1) (VAR. "x 16") MAST ARM-MOUNTED, "57th AVE", DUAL-FACED R3-5(L) (30" \times 36") MAST ARM-MOUNTED, "LEFT ONLY ARROW"

R3-6(1) (30" imes 30") MAST ARM-MOUNTED, "LEFT, THRU, RIGHT ARROWS" R10-11b (24" \times 24") MAST ARM-MOUNTED, "NO TURN ON RED" \sim R3-5(R) (30" imes 36") MAST ARM-MOUNTED, "RIGHT ONLY ARROW" S1-1(R)(36"x36") SYMBOLIC SCHOOL CROSSING (RIGHT), POLE-MOUNTED

S1-1(L)(36"x36") SYMBOLIC SCHOOL CROSSING (LEFT), POLE-MOUNTED

W16-7p(R)(24"x12") DIAGONAL DOWN (RIGHT) ARROW, POLE-MOUNTED W16-7p(L)(24"x12") DIAGONAL DOWN (LEFT) ARROW, POLE-MOUNTED

SHIELD ASSEMBLY PANELS

(30"x 48") POLE-MOUNTED, "WEST, MD 450, RIGHT ARROW" 1 EA (30"x 48") POLE-MOUNTED, "EAST, MD 450, RIGHT ARROW" (48"x 72") POLE-MOUNTED, "WEST, MD 450, LEFT ARROW" 1 EA $(48'' \times 72'')$ POLE-MOUNTED, "EAST, MD 450, LEFT ARROW"

4 EA R10-3(1) (9"x 15") POLE-MOUNTED PEDESTRIAN SIGNS "PUSH BUTTON TO CROSS 57TH AVENUE" R10-3(1) (9"x 15") POLE-MOUNTED PEDESTRIAN SIGNS

"PUSH BUTTON TO CROSS ANNAPOLIS ROAD"

EQUIPMENT LIST "B"

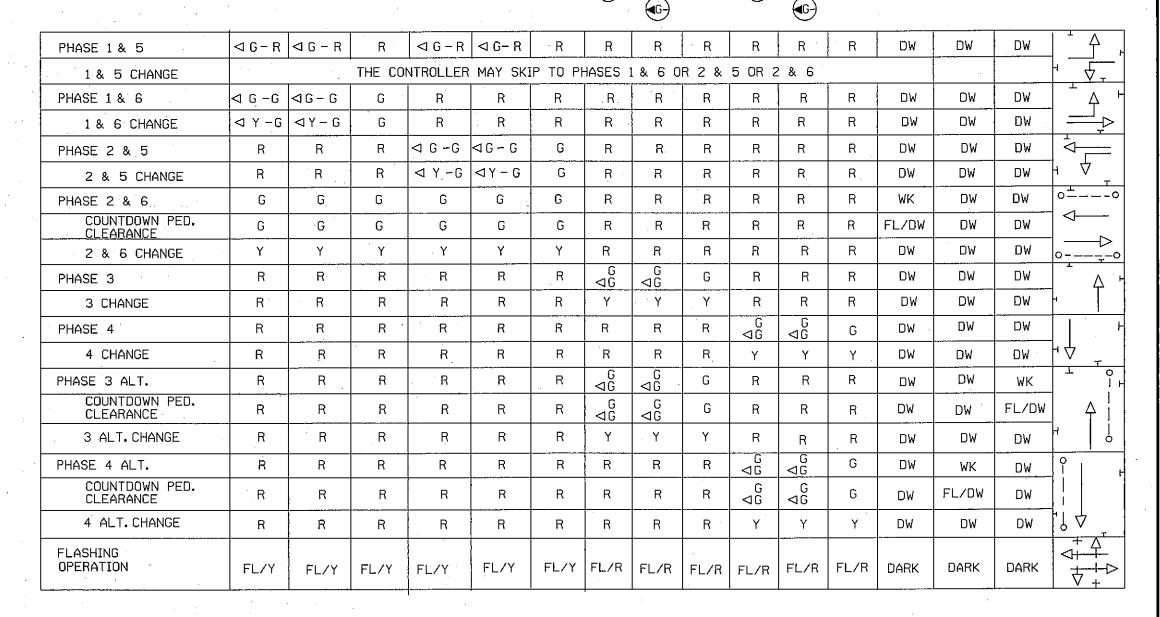
ITEM

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

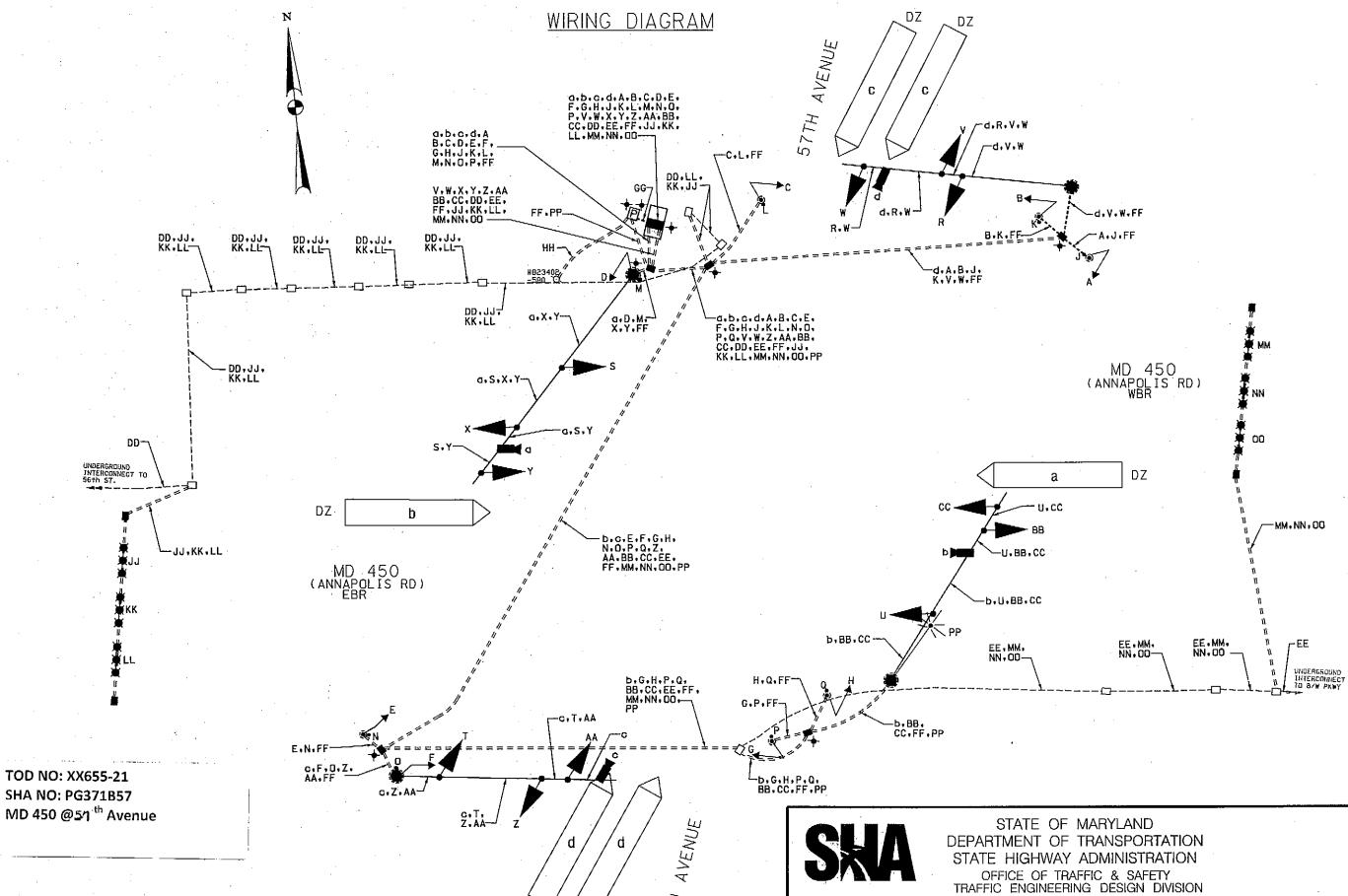
_	NO.	QUAI	YTITY	DESCRIPTION	
	1001	3	EA	MAINTENANCE OF TRAFFIC	
2	2002	8	CY	TEST PIT EXCAVATION	
. (5004	2180	LF	12" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKI	NG LINES
Ę	5005	60	LF	24" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKI	NG LINES
(5001	150	LF	STANDARD TYPE 'A'COMBINATION CURB AND GUTTER	
(5002	300	SF	12" GUTTER PAN AND 8" CURB 5" CONCRETE SIDEWALK	
. (5003	40	SF	DETECTABLE WARNING SURFACE FOR CURB RAMP	
- 8	3001	36	EA	12" LED SIGNAL HEAD SECTION	
	3002	1	EA	2-WIRE CENTRAL CONTROL UNIT	
8	3004	12	EΑ	8" LED SIGNAL HEAD SECTION	
	3007	1	EĄ	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WA	TT ·
. 8	3008	8	EA	HPS LAMP AND LUMINAIRE AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND	D SIGNS
8	3009	6	EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)	
8	3012	1	EA	EMBEEDDED METERED SERVICE PEDESTAL WITH BYPASS ST	WITCH
8	3015	8	EA	16" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD	
8	3018	3	EA	MAST ARM POLE AND 50' MAST ARM ANY "T" DIMENSION	
8	3019	1	EA	MAST ARM POLE AND 60' MAST ARM ANY "T" DIMENSION	
. 8	3022	· 6	EA	NON-INVASIVE DETECTOR, (ANY LENGTH) LEAD-IN CABLE	E UP TO 1000'
8	3023	· 1	EA	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)	
8	3028	4	EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH	
8	3030	40	LF	1-CONDUCTOR ELECTRICAL CABLE, NO. 2 AWG/THHN	
8	3033	325	LF	DISCONNECT, PULL BACK AND REROUTE CABLES	
۶ .	3034	300	LF	ELECTRICAL CABLE, 2 - CONDUCTOR (NO. 12 AWG) TYPE	E T/C
8	3038	550	LF	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	
٤	3039	550	LF	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHE) .
ξ	3041	296	SF	INSTALL OVERHEAD OR GROUND-MOUNTED SIGNS (INCLUDING ALL HARDWARE)	
	3043	710	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	
8	3046	60	LF	ELECTRICAL CABLE 1-CONDUTOR NO.8 AWG - THHN/THWN	
8	3047	9	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE	
8	3054	1500	LF ·	ELECTRICAL CABLE, 2 - CONDUCTOR (NO. 14 AWG)	
8	3056	1590	LF	ELECTRICAL CABLE, 5 - CONDUCTOR (NO. 14 AWG)	
. 8	3057	1920	LF	ELECTRICAL CABLE, 7 - CONDUCTOR (NO. 14 AWG)	a,b,c,d - VI
8	3063	1	EA	INSTALL CONTROLLER AND CABINET BASE-MOUNTED (ANY SIZE)	LE CO
				VANT SIZE/	A.B.C.D. — 5— E.F.G.H ELI

EQUIPMENT LIST "C"

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.



PHASE CHART



GG - NO. 8 AWG, THHN/THWN B.C.D. - 5-CONDUCTOR (NO.14 AWG) ELECTRICAL SERVICE ELECTRICAL CABLE J.K.L.M. - 2-CONDUCTOR (NO.14 AWG) - 1-CONDUCTOR NO. 2 AWG/

WIRING KEY

ELECTRICAL CABLE N, O, P, Q R.S.T.U - 5-CONDUCTOR (NO.14 AWG) JUMPER ELEC. CABLE V.W.X.Y.Z. - 7-CONDUCTOR (NO.14 AWG) ELECTRICAL CABLE AA,BB,CC

EXISTING INTERCONNECT

AND RE-ROUTED)

CABLE (TO BE PULLED BACK

- VIDEO CAMERA WITH

CONTROLLER

LEAD-IN CABLE TO

LL.MM. PROBE LEAD-IN NN • 00

DZ - DETECTION ZONE

→ GROUND ROD

THHN ELECTRICAL SERVICE CABLE JJ,KK, - PROPOSED NON-INVASIVE PP - 2-CONDUCTOR (NO 12 AWG)

BARE COPPER GROUND

FF - NO. 6 AWG, STRANDED

TYPE T/C

CENTURY ENGINEERING CONSULTING ENGINEERS - PLANNERS 10710 GILROY ROAD HUNT VALLEY, MD 21031

REVISION 'E'

PROJECT NO. 101195,56

GENERAL INFORMATION SHEET SCALE NONE ADVERTISED DATE APR 4, 2012 CONTRACT NO. XX6555185

DRAWING SG-02 OF

COUNTY PRINCE GEORGE'S DESIGNED BY DRAWN BY LOGMILE _____16045001.31 CHECKED BY NMR /MR TIMS NO. K042 TOD NO. F.A.P. NO.

SHEET NO. 2 OF 2

MD 450 (ANNAPOLIS ROAD)

AT 57TH AVENUE

BLADENSBURG, MD

PLOTTED: Monday, May 07, 2012 AT 02:51 PM FILE: S:\2010\Transportation\101195.56 MD 450 at 57th Ave\CADD\ACAD SheetSets\pSG-P002GI_MD450 at 57th AVE.dgn

TS NO. 706E-GI